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CURRENT STATE ASSESSMENT OF PHARMACEUTICAL CARE IMPLEMENTATION IN UKRAINE

© O. Shylkina, V. Dobrova

На сучасному етапі розвитку фармації відбулися значні зміни у позиціонуванні ролі провізора (фармацевта) у системі охорони здоров'я, що сприяло становленню фармацевтичної опіки (ФО) та впровадженню її у фармацевтичну практику.

Мета роботи: *дослідити та оцінити сучасний стан впровадження ФО в аптечних закладах України, а також шляхом ґрунтовного аналізу отриманих результатів визначити ключові недоліки у її практичному впровадженні та визначити можливі шляхи удосконалення вітчизняної системи ФО.*

Матеріали та методи: *було проведено опитування провізорів (фармацевтів) у 280 аптечних закладах 10 областей. Оцінка результатів опитування проводилась за допомогою методів описової статистики, кореляційного аналізу та непараметричної статистики.*

Результати досліджень. *Встановлено що найбільша кількість аптечних закладів, включених у дослідження, обслуговує 100–500 осіб в день, у 43 % аптечних закладах ведеться облік постійних відвідувачів. Загальна якість ФО, яка враховує якість ФО під час допомоги відвідувачам аптек при відпуску рецептурних ЛЗ, ОТС-препаратів і при наданні діагностичних послуг, а також оцінку безперервного самовдосконалення провізорів (фармацевтів) є у більшості випадків (71 %) незадовільною. Найбільш якісно проводиться ФО при відпуску ОТС-препаратів (51 % - висока, середня та низька, 49 % - незадовільна), а якість ФО при відпуску рецептурних препаратів і наданні діагностичних послуг у більшості досліджуваних аптечних закладів оцінена як незадовільна. Оцінка успішності реалізації п'яти факторів забезпечення якості ФО при наданні фармацевтичних послуг показала, що реальний стан їх здійснення є низьким або незадовільним. Оцінка стану безперервного навчання з питань ФО показала, що у 71 % аптечних закладів понад 50 % провізорів (фармацевтів) вивчали ФО під час навчання у ВНЗ, але частка таких осіб, що вивчали ФО у рамках післядипломної освіти, є меншою 50 %.*

Висновки. *Спрямованість вітчизняної системи ФО переважно на здійснення опіки в ході відпуску ОТС-препаратів і практична її відсутність при відпуску рецептурних препаратів і при наданні діагностичних послуг є суттєвою перешкодою для забезпечення загальної якості ФО у вітчизняній практичній фармації. Проведений аналіз показав необхідність розробки нових теоретичних моделей і науково-методичних рекомендацій щодо якісної реалізації ФО*

Ключові слова: *фармацевтична опіка, лікарські засоби, ОТС-препарати, професійне самовдосконалення, фармацевтичні послуги*

1. Introduction

Over the last two decades, significant changes have been made in positioning pharmacist in the modern health system, which has led to the formation and development of a policy of pharmaceutical care (PC) and its introduction into modern pharmaceutical practice [1]. This contributed to the emergence of new requirements for the professional and social responsibilities of the pharmacist [2], as well as the development of relevant documents and guidelines [3]. Today, the professional activities of pharmacists in many countries include not only aspects such as the record of drugs and the release of prescription and over-the-counter drugs, as well as the control of the prescription, consultation of visitors of pharmacy establishments (patients) on the interaction of drugs, pharmacovigilance, drug delivery, consultation of doctors in the treatment of diseases with respect to rational pharmacotherapy, provision of diagnostic services in a pharmacy, etc. [4].

2. Formulation of the problem in a general way, the relevance of the theme and its connection with important scientific and practical issues

The analysis of scientific sources conducted by us showed that in many countries with different levels of economic development and level of wealth among specialists of the health care system widely spread a discussion about the possibility of granting permission to pharmacists to prescribe medicines and medical appointments, as well as a scientific assessment of all aspects of this proposal is being done [5]. According to many experts [6], as well as the results of questionnaires as pharmacists, doctors [7] and visitors of pharmacies (patients), consider this experience as positive [5], but a number of barriers and the difficulties that reduce the effectiveness of this service may have certain risks to the health of patients and require the development of additional methodological algorithms for the implementation of this policy and certain legislative and regulatory documents [8]. Much attention is paid to ensuring the quality of the implementation of pharmaceutical services in the conditions of pharmacies, proper pharmacological consultations during the release of prescription drugs and OTC drugs [9], the establishment of interaction and constant cooperation between the doctor and the pharmacist [6], the creation of conditions for the provision of diagnostic medical services in pharmacies and expanding their volumes [6], as well as ensuring the interaction between a pharmacist and pharmacy visitors (patients) in all aspects of the pharmacist ambulance [9, 10].

3. Analysis of recent studies and publications in which a solution of the problem are described and to which the author refers

It should be noted that the aforementioned fundamental world trends in the expansion of the role of pharmacist and the introduction of PC into current practice have found their response in the domestic health system. First of all, these changes took place in the academic space and became the basis for the development of new academic disciplines (for example, "Clinical pharmacy and pharmaceutical care") and educational training programs, in which the future pharmacists develop the skills of PC self-treatment, assess possible drug interactions, prevention their side-effect, monitoring of the effectiveness and safety of the use of pharmaceuticals, skills and algorithms for communicating with the patient in the course of performing the PC [11]. Also, occurred the inclusion of PC in the general model of pharmaceutical practice and the concept of pharmaceutical care [12, 13]. In Ukraine are developed and implemented a number of normative documents defining the professional duties of the pharmacist in the release of prescription and OTC drugs [14, 15], the introduction of pharmaceutical services standards [16], and the provision of PCs for ensuring effective medical therapy [17].

4. The field of research considering the general problem, which is described in the article

The analysis of domestic normative documents and scientific publications regarding practical approaches to the implementation of the PC showed that there are large gaps in the assessment of the feasibility of the implementation of key components of PC in domestic pharmacy establishments in providing basic pharmaceutical services. Apart from this is a systematic assessment of the quality of PC in domestic pharmacy facilities, while international experts pay close attention to that one [18, 19]. In the course of such evaluations, it is considered important to analyze the quality of the PC in the release of prescription drugs, ensuring adequate awareness of patients and control their condition in the release of OTC drugs [20]. Such an analysis also includes an assessment of the training of pharmacists on PC issues and their level of professional development, as well as the quality of the introduction and provision of diagnostic services in the pharmacy [18, 19]. Thus, in the context of reforming the domestic health care system, it is important to analyze the state of practical implementation of the basic principles of the PC in Ukrainian pharmacy practice.

5. Formulation of goals (tasks) of article

To study and evaluate the current state of implementation of PC in pharmaceutical establishments of Ukraine, as well as through a thorough analysis of the results, identify key disadvantages in its practical implementation and identify possible ways to improve the national PC system.

6. Presentation of the main research material (methods and objects) with the justification of the results

The assessment with provisors (pharmacists) questionnaire was conducted in 2017 in 280 pharmacy establishments in 10 regions of Ukraine (northern – Kyiv, Chernihiv, southern – Odessa, Mykolaiv, eastern – Kharkiv, Poltava, western – Khmelnytsky, Volyn, Rivne). Among the received questionnaires, 5 were not relevant and were excluded; therefore, 275 completed questionnaires were used in the subsequent study.

To conduct this study, we used the questionnaire "Tool for self-assessment of the quality of pharmaceutical care", developed jointly by the Committee for Medicines and Pharmaceutical Care (CD-P-PH) and the Committee of Experts on Quality and Safety Standards for Pharmaceutical Practice and Pharmaceutical Care (CD- P-PH / PC) and adapted for Eastern Europe [18]. This questionnaire consists of six sections: 1 – general information about the respondent, 2 – general information about the pharmacy establishment, 3 – continuing professional development, 4 – release of medicines (prescription drugs), 5 – OTC-drugs release, 6 – diagnostic services, which are introduced in the pharmacy. For each of these sections, the total points were calculated, as well as the evaluation of the section by the formula [18]:

$$ES_i = \frac{NP_i}{\max NP_i} \cdot 100\ \%, \quad (1)$$

where NP_i – the number of points received for the i section, max NP_i – the maximum number of points for this section, varies for each section [18].

In addition, the overall assessment of the quality of pharmaceutical care in the pharmacy was determined, which was calculated by the formula [18]:

$$OA_{PC} = (ES_3 + ES_6) \cdot 0,2 + (ES_4 + ES_5) \cdot 0,3. \quad (2)$$

All results were ranked on the following scale: high level – the score ranges from 83 to 100, the average is 67 to 82.9, satisfactory – from 50 to 66.9 and low – from 0 to 49.9.

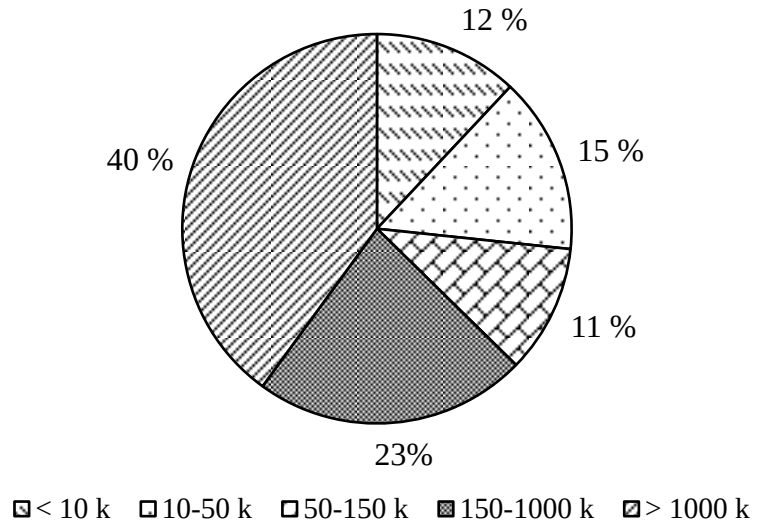
The analysis of the survey results also used methods of statistical analysis: descriptive statistics (particle and percentage calculation), group stratification methods and nonparametric statistics methods (correlation analysis with the calculation of the Spirman correlation coefficient and determination of its statistical reliability). The comparison of the quality of PC on the types of pharmaceutical services was carried out using the χ^2 test. The difference between the groups was considered statistically reliable, if the calculated p-level did not exceed 0.05. The calculations of the experimental data were based on the statistical packages of Statistica 10.0 (StatSoft Inc.) and Microsoft Excel 2010 (Microsoft Inc.).

According to the first part of the questionnaire, the head of pharmacy establishments (26 %), provisors (63 %) and pharmacists (11 %) took part in the study, 43 % of them were representatives of pharmacy establishments of the Kharkiv region, 25 % – Poltava, 12 % – of Kyiv, 7 % – Chernihiv, 7 % – Khmelnytsky, Volyn, Rivne (together) and 6 % – Odesa, Mykolaiv (together). According to the analysis of the second part of the questionnaire (general information about the pharmacy) it was established that 40 % of pharmacy establishments are located in settlements with a population of more than

1 million inhabitants, and 23 % – from 50 to 150 thousand inhabitants (Fig. 1, a) . The most number of pharmacies (64 %) serves from 100 to 500 visitors every day, 21 % – up to 100 people, and 15 % serves more than 500 people per day (Fig. 1, b).

At the same time, 43 % of pharmacies in one way or another measure the number of regular buyers (visitors), and 50 % of these pharmacies determine that more than 50 % of their customers are regular customers, that is, they visit this pharmacy every month or more often.

The number of staff working in these pharmacy establishments determined the following distribution: most pharmacies have from one to five provisors (77 %) and pharmacists (88 %); in 15 % of pharmacies, provisors are absent and they have only pharmacists; in 3 % – more than 10 pharmacists work (Fig. 2). It should be noted that 57 % of pharmacy establishments have in their staff one to six employees of other professions (for example, nurses, accountants, managers, sellers of parapharmaceuticals, drivers, etc.) who do not have pharmaceutical education.



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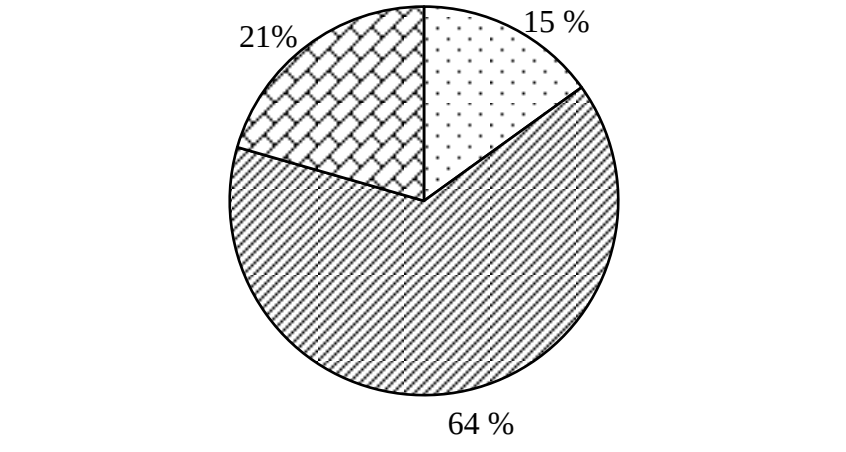

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Fig. 1. Distribution of respondents by indicators: a – the population in the settlements where their pharmacies are situated; b – the number of visitors that are served daily

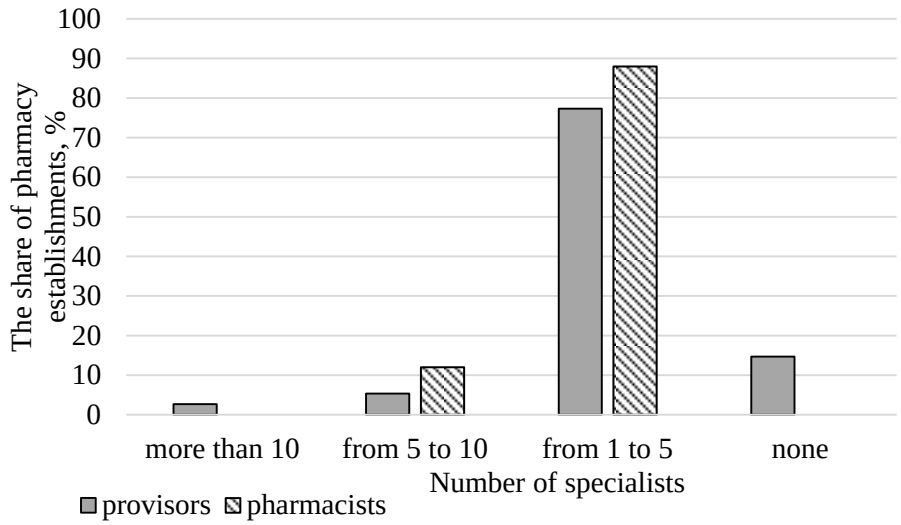

Fig. 2. Distribution of investigated pharmacies by the number of provisors and pharmacists who work there

The overall assessment of the quality of the PC in pharmacies showed that only 1 % of them performed the PC with all high-level pharmaceutical services, 5 % on average, 23 % on low and 71 % on unsatisfactory (Fig. 3).

The current range of pharmaceutical services that can be provided to a visitor in a pharmacy establishment includes three main components: helping visitors of pharmacies when prescribing prescription drugs, OTC drugs and providing diagnostic services. The quality of PC implementation during the implementation of each of these elements provides the overall quality of PC in a pharmacy establishment and characterizes the degree of implementation of the PC conception. According to the results of our quality assessment, we established a statistically significant difference in the provision of these services ($p < 0.05$). It has been established that the lowest quality of implementation is part of the "diagnostic services introduced in the pharmacy", only 3 % of the pharmacies under investigation showed that diagnostic services were low, and 97 % of them were unsatisfactory, that is, they were either not provided or were performed not often and limited (Fig. 3). Higher values of the quality of the PC were obtained for the key component of "release of drugs (prescription drugs)". Thus, in 39 % of pharmacies, these services are provided on an average (7 %) or low (32 %) level, and 61 % are unsatisfactory (Fig. 3). The highest quality of PC in the release of OTC drugs, so in 5 % of pharmacies, the quality of this service is estimated as "high", 9 % – "average", 37 % – "low" and 49 % are unsatisfactory (Fig. 3) .

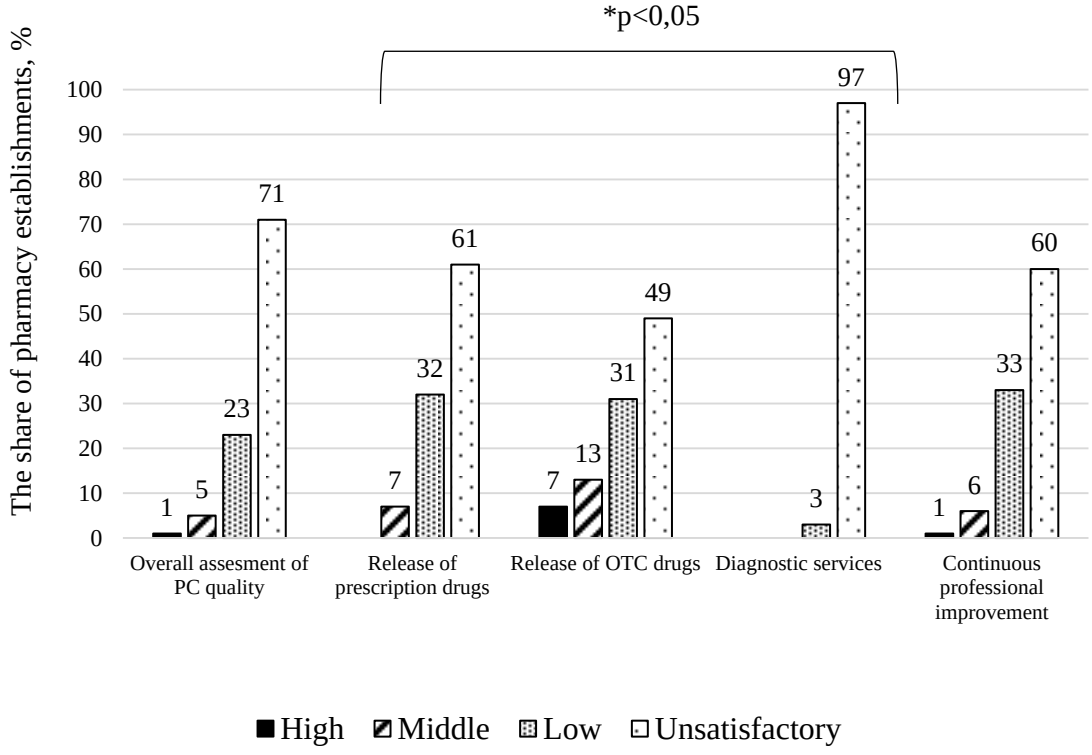

Fig. 3. Analysis of the quality of pharmaceutical care in pharmacy establishments of Ukraine (* p-level=0.000 <0.05, χ^2-test)

Next, for each of the three components (assistance for pharmacy visitors in the release of prescription drugs, OTC drugs and provision of diagnostic services), an analysis of the success of the implementation of five quality assurance factors for PC was conducted: assessment of the visitor (patient) status, counseling and training of the visitor (patient), documenting, monitoring of actions / decisions related to the prescribed drug / proposed OTC-drug, interprofessional co-operation (Fig. 4).

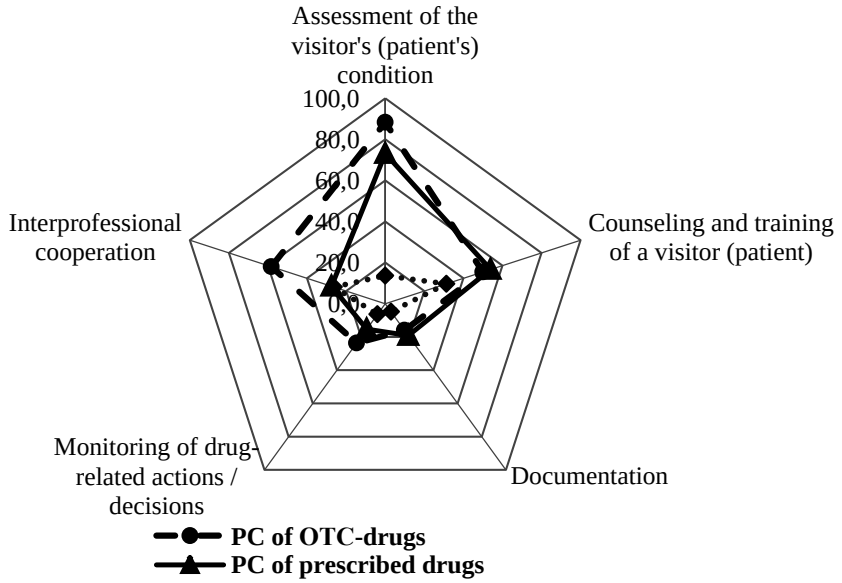

Fig. 4. Assessment of the success of implementation in pharmacy establishments of Ukraine of five factors of quality assurance of PC in the provision of pharmaceutical services

It was established that for the services "assistance for pharmacies visitors at the release of prescription drugs" and "assistance for visitors of pharmacies in the release of OTC-drugs", the assessment of the visitor's (patient's) condition was carried out on average and high levels (73 points in the release of prescription drugs and 88 points in the release of OTC-preparations). Also for these services, counseling and training of the visitor (patient) were carried out at a low level (54 points for the release of prescription drugs and 51 points for the release of OTC-drugs). The PC quality assurance factor "inter-professional co-operation" was rated 43 (low PC implementation) only for the "help to pharmacists visitors for the release of OTC-drugs" service, and unsatisfactory implementation of prescribed drug release. Factors for quality assurance such as "documenting" and "tracking actions / decisions related to prescribed medication / proposed OTC-drug" are poorly implemented both for the "help to pharmacies visitors when prescribed drug released" services and "help to pharmacies visitors when OTC-drugs released "(Fig. 4). Separately, it is necessary to allocate provision of diagnostic services, for which not one of the five above-mentioned factors of quality of the PC was not implemented even at a satisfactory level (Fig. 4). Thus, in the course of the analysis of the evaluation of the success of implementation of the five factors of PC quality assurance in the provision of three key pharmaceutical services, it has been established that the current real state of their practical implementation is low or unsatisfactory by almost all factors of the provision of the PC. Such a situation requires attention and development of scientifically grounded approaches to its correction, as well as implementation of tools and methods for improving PC quality for all key pharmaceutical services.

An important element that can affect the quality of PC performance in pharmacy facilities and should be implemented in accordance with the Good Pharmacutical Practice (GPP) [16] is a continuous professional improvement, so we also have paid attention on it in our analysis. It is established that the level of continuous professional self-improvement among pharmacists in 60 % of investigated pharmacies is unsatisfactory, as well as a high level have only 1 %, and the average one just in 6 % of pharmacies, all others have a satisfactory level (Figure 3).

Such a level of continuous professional self-improvement can be considered as one of the reasons for the low quality of PC implementation of the three components mentioned above: assistance to visitors of pharmacies in the release of prescription drugs, OTC drugs and provision of diagnostic services. Therefore, it was decided to investigate the state of implementation of the components that provide continuous professional self-improvement of pharmacists, such as the study of PC in higher education institutions and advanced training in PC issues during postgraduate development.

It has been established that in 71 % of pharmacies more than 50 % of pharmacists who work there studied the PC while studying in higher educational institutions (Fig. 5). At the same time, the distribution of the number of pharmacists PC within the framework of postgraduate qualification upgrades dramatically moves towards decreasing the percentage of such individuals. Thus, in 65 % of pharmacies, the proportion of pharmacists who studied the PC in postgraduate qualification does not exceed 50 % (Fig. 5).

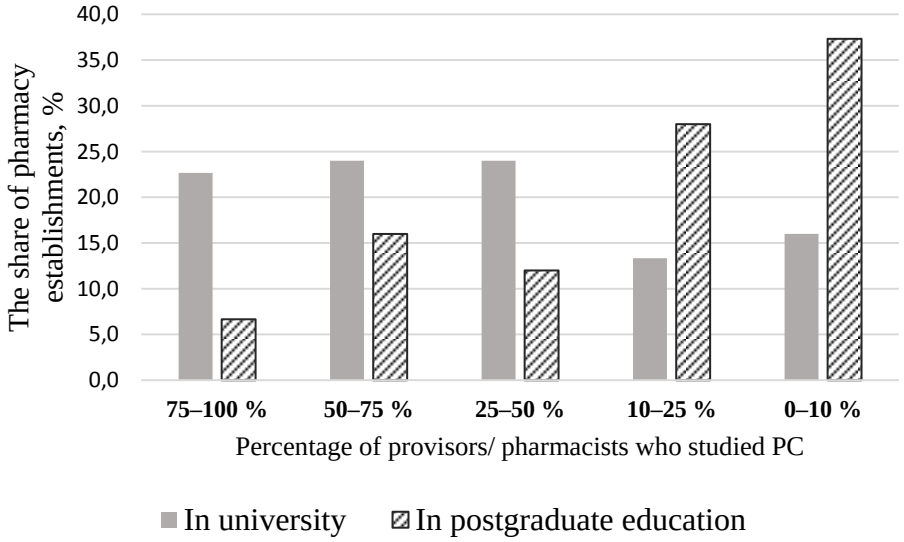

Fig. 5. Distribution of pharmacies by the number of provisors and pharmacists who studied pharmaceutical care

An analysis was also carried out of the organization conducting postgraduate training and advanced training with PC for provisors / pharmacists, according to the percentage of pharmacy establishments that used their services (Figure 6). It has been established that provisors / pharmacists of the vast majority of pharmacies (47 %) update their knowledge of the PC during the postgraduate qualification training. The share of pharmacies, provisors / pharmacists who received advanced training in PC issues at lectures and seminars conducted by pharmaceutical companies is 23 %.

19 % of pharmacies used the services of professional organizations that offered trainings and seminars, which included PC issues. It is noteworthy that provisors / pharmacists of 11 % of pharmacy establishments did not attend full-time courses on PC issues (Fig. 6), which is unacceptable in modern time realities.

In the course of our study, a correlation analysis of the significance of the factors of "studying PC in higher education institutions" and "PC skills improvement during postgraduate improvement" was carried out on PC quality assessments with the help of pharmacy visitors at the release of prescription drugs, OTC drugs and the provision of diagnostic services (Table 1). Also, by means of correlation analysis, the type of organization that conducts postgraduate training and advanced training with PC for provisors / pharmacists, or the quality of the PC on these three components (Table 1) is investigated or influenced.

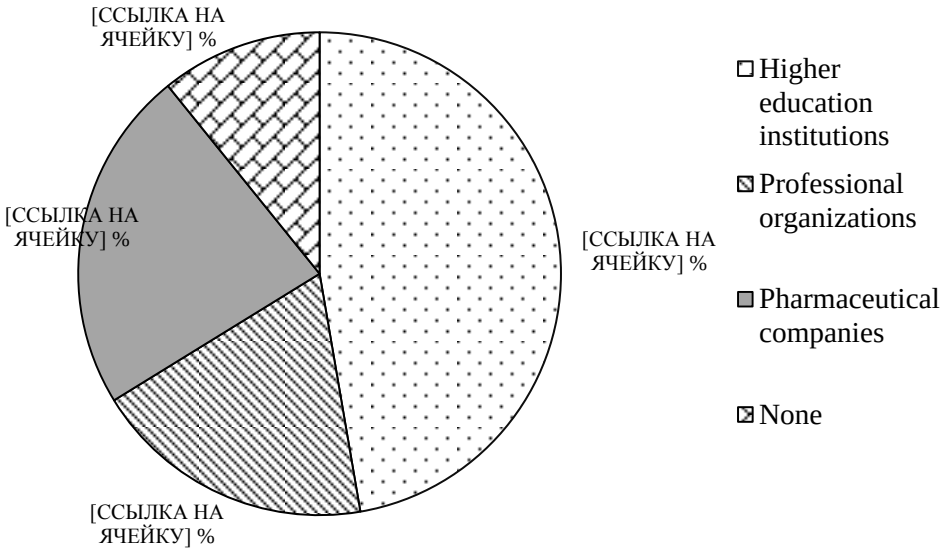

Fig. 6. Analysis of organizations to which pharmacy establishments refer to in-service training (according to the percentage of pharmacy establishments using their services)

The analysis of the Spirman correlation coefficients showed that there was a high statistically significant effect of the number of provisors / pharmacists studying the PC when they were studying at higher educational establishments on the quality of PC in the release of OTC drugs (r_{OTC1} = 0.76). Also, a sufficiently statistically significant relationship between the factor of professional development on the issues of PC during the

postgraduate improvement and the assessment of the quality of PC during the release of OTC drugs (r_{OTC2} = 0.65).

At the same time, the PC quality assessment with the help of pharmacy visitors during the release of prescription drugs was statistically weakly associated with the level of studying the PC during studying in higher educational institutions and the factor of advanced training on PC (r_{RD1} = 0.36 and r_{RD2} = 0.27, respectively) . A similar situation is observed in assessing the influence of these factors on the quality of the PC in the provision of diagnostic services, where a statistically significant correlation relationship was established only for the factor of "studying PC during the study in higher education", and even for this indicator it was weak (r_{DP1} = 0.26). Such results may be explained by the orientation of the domestic PC system mainly for caring during the release of OTC drugs and its practical absence during the release of prescription drugs and the provision of diagnostic services.

Table 1

The connection of continuous professional self-improvement of provisors / pharmacists and the quality of PC in the provision of pharmaceutical services in pharmacies

Assessing PC quality in providing key pharmaceutical services	Indicators of continuous professional self-improvement		
	Studying a PC in higher educational institutions	Improvement of qualification on PC issues during postgraduate improvement	Type of organization conducting postgraduate training and advanced training with PC for provisors / pharmacists
Help visitors of pharmacies when release a prescription drugs	**0.36***	**0.27***	0.22
Help visitors of pharmacies when release an OTC-drugs	**0.76***	**0.65***	**0.34***
Provision of diagnostic services	**0.26***	0.20	0.08

*Note: * – The calculated correlation coefficient is statistically significant*

Investigations of the type of organization that conduct postgraduate training and advanced training with PC for provisors / pharmacists on the quality of PC during the release of OTC-drugs showed that there is a statistically significant correlation interconnection between these indicators (r_{OTC3} = 0.34), but the effect of type of the organization on quality of the PC is not unambiguously significant. During the assessment of the impact of the type of organization that the respondents chose for a postgraduate education, a statistically significant difference was found on the quality of the PC in the release of OTC-drugs (p-level = 0.017 <0.05, χ^2 test) (Table 2). It was established that the quality of PC for the release of OTC-drugs, in general, was higher in those pharmacy establishments, whose pharmacists received postgraduate training and were undergoing advanced training in higher education institutions (institutes of advanced training at universities, faculties of postgraduate education of higher educational institutions, etc.) (Table 2).

Table 2

Ranking of pharmacy establishments in the quality of the PC of the release of OTC-drugs and type of organizations conducting postgraduate training and advanced training from PC provisors / pharmacists

PC quality in release of OTC-drugs	Type of organization with postgraduate training			
	Higher education institutions (IPC, FPK)	Professional organizations	Pharmaceutical companies	None
	Percentage of pharmacy establishments ranked by the quality of PC and type of organization, %, %			
High and medium	34	7	11	0
Low	29	21.5	33	50
Unsatisfactory	37	71.5	56	50
p-level*	0.017			

*Note: * – calculated with the χ^2 test*

7. Conclusions from the conducted research and prospects for further development of this field

1. In the course of our research, the current world trends and aspects of PC development, as well as its introduction into practical pharmacy, have been analyzed. It has been established that PC is an integral part of pharmaceutical aid, but the issues of the quality of PC implementation in Ukrainian pharmacy establishments are left out of the attention of domestic scientists and practitioners.

2. Our assessment of the current state of PC implementation in pharmacy facilities in 10 regions of Ukraine, during which the questionnaire "The tool for self-assessment of the quality of pharmaceutical care" (CD-P-PH & CD-P-PH / PC) was used, showed that the most number of pharmacies included in the study, serve from 100 to 500 people per day. In 43 % of pharmacy establishments there is a record of regular visitors. Most pharmacies have from one to five provisors and pharmacists, as well as from one to six of other professionals.

3. A thorough analysis of the results obtained during the survey allowed to determine that the overall PC quality that takes into account the quality of the PC while helping visitors of pharmacies when prescribed drugs released, OTC drugs released and provision of diagnostic services, as well as the assessment of continuous self-improvement of provisors (pharmacists) working in these pharmacies, in most cases (71 %) is unsatisfactory.

4. In the course of the study, the difference in the quality of the PC in providing services to visitors of pharmacies during the release of prescription drugs, OTC drugs and provision of diagnostic services in the pharmacy ($p < 0.05$, χ^2 test) was established. It was found that PC is the most qualitatively performed at the release of OTC drugs (51 % – high, medium and low, 49 % unsatisfactory), and the quality of PC in the release of prescription drugs and the provision of diagnostic services in most investigated pharmacies is estimated to be unsatisfactory. This result may be explained by the fact that, in contrast to the release of prescription drugs and the provision of diagnostic services in pharmacy settings, the PC during the release of OTC drugs is provided not only by normative instructions, but also by a training and methodical complex for the preparation of pharmacists in medical (pharmaceutical) universities of Ukraine.

5. Assessment of the success of the implementation of five factors in the quality assurance of the PC (assessment of the status of the visitor (patient), counseling and training of the visitor (patient), documentation, monitoring of actions / decisions related to the prescribed drug / proposed OTC-drug, interprofessional cooperation) providing key pharmaceutical services has shown that the current real state of their practical implementation is low or unsatisfactory by almost all factors of the provision of PC. This situation requires attention and development of scientifically-grounded methodological approaches to its correction, as well as implementation of tools and methods for improving the quality of PC for all pharmaceutical services.

6. The study of PC continuous education found that in over 71 % of pharmacies, more than 50 % of provisors / pharmacists working there studied the PC while studying at universities, but the proportion of those continuing their advanced training in PC in postgraduate backgrounds education is less than 50 %. At the same time, a sufficiently statistically significant effect of these factors on the quality of PC in the release of OTC drugs and its lack of prescription drug delivery and diagnostic services was established. This is due to the orientation of the domestic PC system for the prevalence of care during the release of OTC drugs, as well as the emphasis on pre- and postgraduate education on PC of OTC-drugs and the lack of a common theoretical PC model that would cover all key aspects of pharmaceutical services.

7. Our analysis of the current state of the introduction of PC in domestic practical pharmacy showed the relevance of the development of theoretical approaches to improving the PC system in Ukraine and scientific and methodological recommendations for their implementation, which should take into account all key pharmaceutical services and allow the corrections of inconsistencies established during the study.

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Olena Shylkina, Head of Department, Department of Quality of Medical Care and Information Technologies, State Enterprise "State Expert Center of the Ministry of Health of Ukraine", Vasylkivska str., 14, Kyiv, Ukraine, 03040

Viktoriia Dobrova, Doctor of Pharmaceutical Sciences, Professor, Department of Clinical Pharmacology and Clinical Pharmacy, National University of Pharmacy, Pushkinska str., 27, Kharkiv, Ukraine, 61002
E-mail: vd311270@gmail.com

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ANALYSIS OF THE UKRAINIAN MARKET OF PARAPHARMACEUTICALS FOR PREVENTION OF KELOID SCARS

© A. Nemchenko, V. Nazarkina, V. Mishchenko, O. Vinnik

Аналіз ринку парафармацевтиків антикелоїдної дії (ПФАД), для профілактики утворення келоїдних рубців (КР) та забезпечення населення доступними засобами є актуальним питанням на цей час. Причини утворення КР медиками досі не виявлено. Схильність до келоїдоутворення було відзначено у таких випадках, як: після хірургічних втручань, спадковість, етнічні фактори, імунні патології та ін.

***Мета дослідження** полягала у проведенні аналізу українського ринку парафармацевтиків (ПФ), що застосовуються для профілактики утворення келоїдів.*

***Матеріали та методи.** Матеріалами дослідження було обрано асортимент ПФАД для лікування КР, який був присутній на вітчизняному ринку протягом 2015–2017 рр. за статистичними, аналітичними та економіко-математичними методами аналізу.*

***Результати дослідження** свідчать, що ПФ застосовують у профілактичних, фізіотерапевтичних, фармакотерапевтичних та фармацевтичних методах лікування КР та косметологічних процедурах. Український ринок ПФАД представляють виключно вітчизняні виробники («Євро плюс», ПП «Ekobiz», ТОВ НВО «ФітоБіотехнології», група компаній «Ельфа» та ін.). До складу ПФ найчастіше входять гепарин, екстракт цибулі, Д-пантенол. Відзначається присутність однакових за складом засобів, але одні знаходяться в обігу як ЛЗ, а інші – як ПФ. Для споживачів у анотаціях на ПФАД доцільно чітко рекомендувати застосовувати їх тільки з метою першої долікарської допомоги та профілактики утворення келоїду.*

***Висновки** свідчать, що найбільша частка ПФАД (42,9 %) представлена у формі гелю. При аналізі цінових показників ПФАД за 2015–2017 рр., встановлено, що показник коефіцієнту ліквідності знаходиться у межах 0,133–0,433. Всі вітчизняні ПФАД мають високий коефіцієнт адекватності платоспроможності у 2015-2017 рр. Протягом 2015–2016 рр всі розраховані значення показника доступності аналізованих товарів дорівнюють одиниці або більше одиниці ($D \geq 1$). Але у 2017 р. значення аналізованого показника менш одиниці, що є наслідком нестабільної ситуації на фармацевтичному ринку країни*

***Ключові слова:** келоїди, парафармацевтика, аналіз парафармацевтичного ринку, профілактика утворення келоїдів, цінова доступність парафармацевтиків*